

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Amended) An interface controller for interfacing a data acquisition device to at least one host device via at least one interface of a plurality of interfaces, the interface controller comprising:

a microcomputer for receiving data acquired by the data acquisition device and outputting a host device type signal; and

an interface circuitry in operative communication with the microcomputer for receiving the host device type signal and the acquired data, selecting the at least one interface from the plurality of interfaces in accordance with the host device type signal, and transmitting the acquired data to the at least one host device in accordance with at least one format corresponding to said at least one selected interface, wherein the plurality of interfaces includes a USB interface, and at least two interfaces of the plurality of interfaces are provided on one circuit board;

wherein the microcomputer includes flash memory storing programmable instructions for enabling configuration of the interface circuitry.

2. (Original) The interface controller as in claim 1, further comprising a Flash memory for storing a plurality of data translation modules for translating the received data, each of the plurality of data translation modules corresponding to a type of the at least one host device.

3. (Original) The interface controller as in claim 1, wherein the interface circuitry comprises a plurality of switches for coupling host-specific outputs from the microcomputer to an output connector of the interface controller.

4. (Original) The interface controller as in claim 3, further comprising a multiplexer for receiving the host device type signal from the microcomputer and outputting a plurality of switching signals into the plurality of switches.

5. (Original) The interface controller as in claim 1, further comprising a plurality of drivers for driving output signals to voltage levels acceptable by the at least one host device.

6. (Original) The interface controller as in claim 1, further comprising a decoder for receiving input data from a scan engine of the data acquisition device and decoding the received input data according to a predetermined symbology.

7. (Previously Amended) A data acquisition device comprising:

a scan engine for optically acquiring encoded data;

a decoder for receiving input data from the scan engine and decoding the received input data according to a predetermined symbology; and

an interface controller for interfacing the data acquisition device to at least one host device, said interface controller comprising:

a microcomputer for receiving data from the data acquisition device and outputting a host device type signal; and

interface circuitry in operative communication with the microcomputer for receiving the host device type signal and the data received by the microcomputer, selecting at least one interface from a plurality of interfaces in accordance with the host device type signal, and transmitting the received data to the at least one host device in accordance with at least one format corresponding to said at least one selected interface, wherein the plurality of interfaces includes a USB interface, and at least two interfaces of the plurality of interfaces are provided on one circuit board;

wherein the microcomputer includes flash memory storing programmable instructions for enabling configuration of the interface circuitry.

8. (Original) The data acquisition device as in claim 7, wherein the microcomputer includes a plurality of translation modules for translating received data from the decoder.

9. (Original) The data acquisition device as in claim 8, further comprising a memory for storing the plurality of data translation modules for translating the received data, each of the plurality of data translation modules corresponding to a type of the at least one host device.

10. (Original) The data acquisition device as in claim 8, wherein the interface circuitry comprises a plurality of switches for coupling host-specific outputs from the microcomputer to an output connector of the interface controller.

11. (Original) The data acquisition device as in claim 10, further comprising a multiplexer for receiving the host device type signal from the microcomputer and outputting a plurality of switching signals into the plurality of switches.

12. (Original) The data acquisition device as in claim 8, further comprising a plurality of drivers for driving output signals to voltage levels acceptable by the at least one host device.

13. (Previously Amended) A data acquisition system comprising:

a data acquisition device for acquiring data;

at least one host device for receiving and processing the acquired data; and

an interface controller for interfacing the data acquisition device to the at least one host device, said interface controller comprising:

a microcomputer for receiving data from the data acquisition device, including the acquired data, and outputting a host device type signal; and

interface circuitry in operative communication with the microcomputer for receiving the host device type signal and the data received by the microcomputer, selecting at least one interface from a plurality of interfaces in accordance with the host device type signal, and transmitting the received data, including the acquired data, to the at least one host device in accordance with at least one format corresponding to said at least one selected interface, wherein the plurality of interfaces includes a USB interface, and at least two interfaces of the plurality of interfaces are provided on one circuit board;

wherein the microcomputer includes flash memory storing programmable instructions for enabling configuration of the interface circuitry.

14. (Original) The data acquisition system as in claim 13, wherein the data acquisition device and the interface controller are an integral device.

15. (Original) The data acquisition system as in claim 13, wherein the microcomputer includes a plurality of translation modules for translating received data, including the acquired data from the data acquisition device.

16. (Original) The data acquisition system as in claim 15, wherein the interface controller further comprises a memory for storing the plurality of data translation modules for translating the acquired data, each of the plurality of data translation modules corresponding to a type of the at least one host device.

17. (Original) The data acquisition system as in claim 15, wherein the interface circuitry comprises a plurality of switches for coupling host-specific outputs from the microcomputer to an output connector of the interface controller.

18. (Original) The data acquisition device as in claim 17, further comprising a multiplexer for receiving the host device type signal from the microcomputer and outputting a plurality of switching signals into the plurality of switches.

19. (Original) The data acquisition device as in claim 15, wherein the interface controller further comprises a plurality of drivers for driving output signals to voltage levels acceptable by the at least one host device.

20. (Previously Amended) A method for interfacing a data acquisition device to at least one host device, the method comprising the steps of:

coupling the data acquisition device to the at least one host device with an interface controller;

determining a type of the at least one host device; and

configuring the interface controller for translating data received from the data acquisition device to at least one format suitable for being received by the type of the at least one host device, transmitting the translated data from the data acquisition device to the at least one host, wherein the configuring step comprises selecting at least one interface from a plurality of interfaces stored within a memory of the interface controller, wherein the plurality of interfaces includes a USB interface, and at least two interfaces of the plurality of interfaces are provided on one circuit board.

21. (Previously Amended) The method as in claim 20, further comprising loading from Flash memory a data translation module for translating data acquired by the data acquisition device to the at least one format of the at least one host device.

22. (Original) The method as in claim 20, wherein the determining step comprises inputting the type of the at least one host device via the data acquisition device.

23. (Original) The method as in claim 22, wherein the inputting step comprises optically scanning the type of the at least one host device.

24. (Original) The method as in claim 20, where the determining step comprises performing an autodiscriminate routine to detect if the at least one host device is connected.

25. (Original) The method as in claim 20, wherein the configuring step comprises electrically coupling host-specific outputs of the interface controller to the at least one host device.